from the late region of a human papillomavirus with the exception of the specific combination of a polypeptide from the E7 early region of a human papillomavirus and a polypeptide from the L2 late region of a human papillomavirus.

39. The pharmaceutical composition according to claim 38, wherein the polypeptide from the early region of a papillomavirus has a degree of similarity greater than 75% with the sequence of the E6 protein, the E7 protein or the E6 and E7 proteins of papillomavirus.

40. The pharmaceutical composition according to claim 39, wherein the polypeptide from the early region of a papillomavirus is a nononcogenic variant of the E6 and/or E7 protein of a papillomavirus.

41. The pharmaceutical composition according to claim 38, wherein the polypeptide from the late region of a papillomavirus has a degree of similarity greater than 75% with the sequence of the L1 protein, the L2 protein or the L1 and L2 proteins of papillomavirus.

42. The pharmaceutical composition according to claim 38, comprising a polypeptide from the E6 region, a polypeptide from the E7 region, a polypeptide from the L1 region and a polypeptide from the L2 region of a papillomavirus.

43. The pharmaceutical composition of claim 38, wherein the papillomavirus is selected from the group consisting of HPV-16, HPV-18, HPV-31, HPV-33 and HPV-45 types.

44. The pharmaceutical composition of claim 38, comprising a pharmaceutically acceptable carrier allowing administration of said composition by injection into humans or into animals.

45. A method for the treatment or prevention of dysplasia or cancer of the neck of the uterus comprising administering an effective amount of the pharmaceutical composition of claim 38 to a patient in need of such treatment.

46. A method for the treatment or prevention of a papillomavirus infection comprising administering an effective amount of the pharmaceutical composition of claim 38 to a patient in need of such treatment.

47. A pharmaceutical composition intended for the treatment or prevention of a papillomavirus infection or tumor, which comprises as therapeutic agents at least one polypeptide from the early region of a papillomavirus and at least one polypeptide from the late region of a papillomavirus and at least one polypeptide having an immunostimulatory activity, wherein said polypeptide from the early region of a papillomavirus and said

polypeptide from the late region of a papillomavirus and said polypeptide having an immunostimulatory activity are expressed recombinantly from independent expression control elements.

48. The pharmaceutical composition according to claim 47, wherein the polypeptide from the early region of a papillomavirus has a degree of similarity greater than 75% with the sequence of the E6 protein, the E7 protein or the E6 and E7 proteins of papillomavirus.

49. The pharmaceutical composition according to claim 48, wherein the polypeptide from the early region of a papillomavirus is a nononcogenic variant of the E6 and/or E7 protein of a papillomavirus.

50. The pharmaceutical composition according to claim 47, wherein the polypeptide from the late region of a papillomavirus has a degree of similarity greater than 75% with the sequence of the L1 protein, the L2 protein or the L1 and L2 proteins of papillomavirus.

51. The pharmaceutical composition according to claim 47, wherein the polypeptide having an immunostimulatory activity is selected from the group consisting of

interleukin-2, interleukin-7, the co-adhesion molecule B7.1 and the co-adhesion molecule B7.2.

52. The pharmaceutical composition according to claim 51, wherein the polypeptide having an immunostimulatory activity is interleukin-2.

53. The pharmaceutical composition according to claim 51, wherein the polypeptide having an immunostimulatory activity is the co-adhesion molecule B7.1.

54. The pharmaceutical composition according to claim 47, comprising:

(a) a polypeptide from the E6 region, a polypeptide from the E7 region, a polypeptide from the L1 region, a polypeptide from the L2 region of a papillomavirus and interleukin-2,

(b) a polypeptide from the E6 region, a polypeptide from the E7 region, a polypeptide from the L1 region, a polypeptide from the L2 region of a papillomavirus and the co-adhesion molecule B7.1, or

(c) a polypeptide from the E6 region, a polypeptide from the E7 region, a polypeptide from the L1 region, a polypeptide from the L2 region of a papillomavirus, the co-adhesion molecule B7.1 and interleukin-2.

55. The pharmaceutical composition of claim 47, wherein said composition comprises:

(a) a nononcogenic variant of an E6 protein of a human papillomavirus, wherein said nononcogenic variant is a variant of the native E6 protein mutated at the level of residues involved in the process of transformation of an infected cell,

(b) a nononcogenic variant of an E7 protein of a human papillomavirus, wherein said nononcogenic variant is a variant of the native E7 protein mutated at the level of residues involved in the process of transformation of an infected cell,

(c) a polypeptide from the L1 region of a human papillomavirus,

(d) a polypeptide from the L2 region of a human papillomavirus, and

(e) interleukin-2.

56. The pharmaceutical composition of claim 55, wherein said nononcogenic variant of the E6 protein is a variant of the native HPV-16 E6 protein having amino acids 111-115 deleted as compared to the native E6 protein.

57. The pharmaceutical composition of claim 55, wherein said nononcogenic variant of the E7 protein is a variant of the native HPV-16 E7 protein having amino acids 21-26 deleted as compared to the native E7 protein.

58. The pharmaceutical composition of claim 47, wherein the papillomavirus is selected from the group consisting of HPV-16, HPV-18, HPV-31, HPV-33 and HPV-45 types.

59. The pharmaceutical composition of claim 47, comprising a pharmaceutically acceptable carrier allowing administration of said composition by injection into humans or into animals.

60. A method for the treatment or prevention of dysplasia or cancer of the neck of the uterus comprising administering an effective amount of the pharmaceutical composition of claim 47 to a patient in need of such treatment.

61. A method for the treatment or prevention of dysplasia or cancer of the neck of the uterus comprising administering an effective amount of the pharmaceutical composition of claim 55 to a patient in need of such treatment.

62. A method for the treatment or prevention of a papillomavirus infection comprising administering an effective amount of the pharmaceutical composition of claim 47 to a patient in need of such treatment.

63. A pharmaceutical composition intended for the treatment or prevention of a papillomavirus infection or tumor, which comprises as therapeutic agents at least one polypeptide from the early region or late region of a papillomavirus and at least one polypeptide having an immunostimulatory activity, wherein said polypeptide from the early region of a papillomavirus and said polypeptide from the late region of a papillomavirus and said polypeptide having an immunostimulatory activity are expressed recombinantly from independent expression control elements.

64. The pharmaceutical composition according to claim 63, wherein the polypeptide from the early region of a papillomavirus has a degree of similarity greater than 75% with the sequence of the E6 protein, the E7 protein or the E6 and E7 proteins of papillomavirus.

65. The pharmaceutical composition according to claim 64, wherein the polypeptide from the early region of a papillomavirus is a nononcogenic variant of the E6 and/or E7 protein of a papillomavirus.

66. The pharmaceutical composition according to claim 63, wherein the polypeptide from the late region of a papillomavirus has a degree of similarity greater than 75% with the sequence of the L1 protein, the L2 protein or the L1 and L2 proteins of papillomavirus.

67. The pharmaceutical composition according to claim 63, wherein the polypeptide having an immunostimulatory activity is selected from the group consisting of interleukin-2, interleukin-7, the co-adhesion molecule B7.1 and the co-adhesion molecule B7.2.

68. The pharmaceutical composition according to claim 67, wherein the polypeptide having an immunostimulatory activity is interleukin-2.

69. The pharmaceutical composition according to claim 67, wherein the polypeptide having an immunostimulatory activity is the co-adhesion molecule B7.1.

70. The pharmaceutical composition according to claim 63, comprising:

(a) a polypeptide from the E6 region, a polypeptide from the E7 region of a papillomavirus and interleukin-2,

(b) a polypeptide from the E6 region, a polypeptide from the E7 region of a papillomavirus and the co-adhesion molecule B7.1 and interleukin-2.

(c) a polypeptide from the E6 region, a polypeptide from the E7 region of a papillomavirus, the co-adhesion molecule B7.1 and interleukin-2.

71. The pharmaceutical composition according to claim 63, wherein said composition comprises:

(a) a nononcogenic variant of an E6 region of a human papillomavirus, wherein said nononcogenic variant is a variant of the native E6 protein mutated at the level of residues involved in the process of transformation of an infected cell; and

(b) a nononcogenic variant of an E7 region of a human papillomavirus, wherein said nononcogenic variant is a variant of the native E7 protein mutated at the level of residues involved in the process of transformation of an infected cell; and

(c) interleukin 2.

72. The pharmaceutical composition of claim 71, wherein said nononcogenic variant of the E6 protein is a variant of the native HPV-16 E6 protein having amino acids 111-115 deleted as compared to the native E6 protein.

73. The pharmaceutical composition of claim 71, wherein said nononcogenic variant of the E7 protein is a variant of the native HPV-16 E7 protein having amino acids 21-26 deleted as compared to the native E7 protein.

74. The pharmaceutical composition of claim 63, wherein the papillomavirus is selected from the group consisting of HPV-16, HPV-31, HPV-33 and HPV-45 types.

75. The pharmaceutical composition of claim 63, comprising a pharmaceutically acceptable carrier allowing administration of said composition by injection into humans or into animals.

76. A method for the treatment or prevention of dysplasia or cancer of the neck of the uterus comprising administering an effective amount of the pharmaceutical composition of claim 63 to a patient in need of such treatment.

77. A method for the treatment or prevention of dysplasia or cancer of the neck of the uterus comprising administering an effective amount of the pharmaceutical composition of claim 71 to a patient in need of such treatment.

78. A method for the treatment or prevention of a papillomavirus infection comprising administering an effective amount of the pharmaceutical composition of claim 63 to a patient in need of such treatment.--

REMARKS

Entry of the foregoing, reexamination and further and favorable reconsideration of the subject application in light of the following remarks, pursuant to and consistent with 37 C.F.R. § 1.112, are respectfully requested.

By the foregoing amendment, claims 1-9, 21, 23, 24 and 32-37 have been canceled without prejudice or disclaimer to the subject matter recited therein. Further, new claims